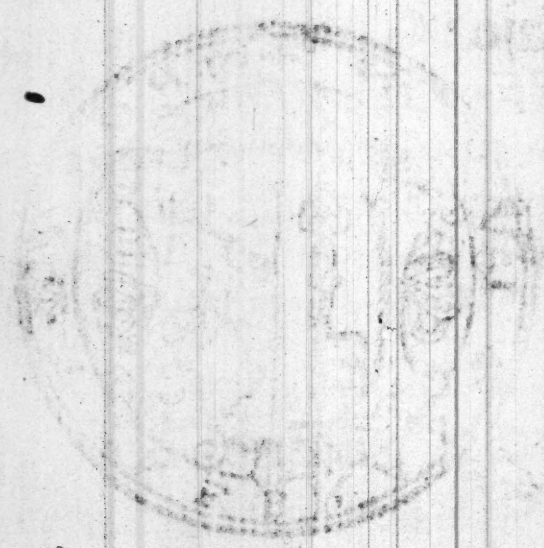


OF THE
MEASURING
OF THE
OVALS
FOR THE
Fitting of a Army.



Printed by J. C. Foxworthy, New York and New
be sold at the office of the General
1844.



TO
THE WORSHIPFULL,
My much honoured Friend,
WILLIAM DENNY, Esq.
Sergeant Major of a Regiment
of FOOTE.

SIR,

IT pleased a Noble friend to
say of the Lord *du Praissac's*
Discourses (by mee lately
Englised) as *Aristotle* said
of his owne writings, *Se*
scripsisse & non scripsisse. For that he con-
ceived a man must be a good Souldier, be-
fore he shall be able well to understand
him; he is so full and compendious: And
therefore wished that as our Geographers
first shew the whole world in one sheet
of paper, but then give large descriptions
and particular Maps of every Province, so
there might be a Comment upon some

The Epistle Dedicatory.

Chapters to make them intelligible, and profitable to all.

Of the first Chapter (the *Exercise of Armes and Military Motions, &c.*) many bookes are obvious; and therefore I have thought fittest to begin at the second, which is of *Castrametation or Encamping*; wherein I have desired to be the more large, because our Nation is not beholden to any (to my knowledge) that hath laboured therein; and the deputy Lieutenants of this County, finde a want of men fit to be Quarter-masters. I have desired your Patronage, both in respect of my many obligations; as also for that I know you able to correct what is amisse, and courteous to pardon it. And as this small Essay shall find acceptance, I shall direct my selfe (as leisure and my poore stocke of knowledge shall serve) in the undertaking of the whole worke. Meane time I kisse your hands, and rest

Your Humble Servant,

JO. CRVSO.



CASTRAMETATION,

O.R,
The measuring out of the Quarters
for the
Encamping of an Armie.

CAP. I.

What Castrametation is, and of the severall kinds of Camps.



Astrametation (a word borrowed from the Romans) is the measuring out of the Quarters, for the Encamping of an Armie.

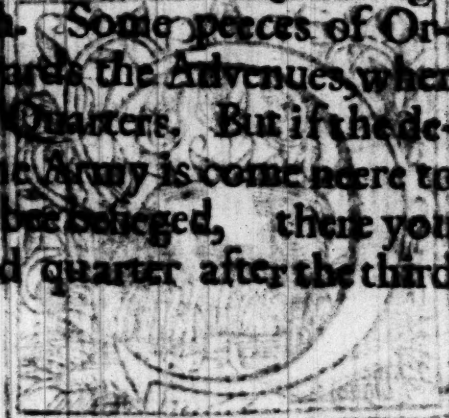
Of Camps there bee three kinds. 1. *Castra Temporanea*. 2. *Castra Sustentoria*. 3. *Castra Strataria*.

Castra Temporanea, Is a temporarie Campe, which is but for a nights continuance, or so; and is alwayes in motion.

Castra Sustentoria, is a flying Armie, to stay an Enemies invasion, and to hinder him from advancing further into the Country; to that end alwayes attending his motions, dislodging when he dislodgeth, and encamping when he encampeth.

Castra Strataria, is a Campe to environ and besiege a Towne or Fortresse.

When the Army marcheth, so long as the Enemy bee farre off, and that the Country be at your devotion, it may be lodged in Villages, (staying but a night, or so) yet must you not omit the usuall Guards and Sentinels: But if you march through the Enemies Country, or that he be neere hand, the best way is to lodge in the field, for that you shal be the more ready to make resistance, if you should be charged on the suddaine. All possible care must be taken to arrive before night (the Generall having sent a good party of Cavallerie before to discover about and beyond the place) and the Quarters may be secured by waggons, Freese-Ruyters, Pallisadoes, &c. Or else (especially if the Army make any stay) the Infantrie are to encampasse the Quarters with a Retrenchment of six foote high and three foote thicke, for their better security; the moorish grounds may bee enclosed by Freese-Ruyters or Pallisadoes; which may be cast upon waggons when the Armie dislodgeth. Some peeces of Ordnance may also be planted towards the Avenues, wher the Enemies might assaile the Quarters. But if the designe be for some siege, when the Army is come neere to the place which is intended to be besieged, then you make your *Castra Strataria*, and quarter after the third manner.



Cap.

Cap. II.

Of the choice of ground for the Quarters.

BEfore we come to the making of these Quarters, some generall observations are to be premised; wherein our Author and the moderne times doe agree with Antiquity, and follow the Rules of a Leo, Vegetius, Hyginus Gromaticus, and others; the summe whereof are these.

1. That the Quarters bee not commanded by some higher ground neere hand, whereby they might lye open to the Enemies view, comming to relieve the Towne or Fortresse besieged.

2. That they be seated neere some River (if it be possible) for the benefit of men and cattell, for the cheaper conveyance of necessaries, for the encompassing and securing of the Campe (whereby much labour and cost of Fortification is saved) and for the avoyding of the noisomnesse of carrion, and flesh, and the Butchers slaughter houses.

3. That there be no woods nor groves neere, where the Enemy might lie hid, and thence continually vexe you; but that the ground be a plaine Champaine, that so you may discover the Enemy a farre off, and retard him by your Cannon, and have time to put your Forces into battalia.

4. That there be no moorish ground nor boggs neere hand, lest your Armie grow diseased by the stench and infectious vapours thereof.

5. That the ground bee not subject to bee overflowed with water, either in Autumne or Winter; or that it bee not made so by Art (either by the besieged, or such as may come to relieve them) by bringing the water upon you from some other place, by cutting their bankes, or by meanes of their sluices.

6. That there be good convenience of Forrage, Wood, and straw neere hand.

a Tact. Cap. 11.

b De re milit.

lib. 1. Cap. 21.

c De Castra-

metat. du

Praissac. in his

militarie dis-

courses. Chap.

2.

Freitag. in his

Fortifications

lib. 3. Cap. 2.

7. That the Quarters bee not too neere the Towne, lest you be galled by their Cannon; nor too farre distant, lest your men which worke in the Approaches, be thereby hindred from being timely relieved from the Quarters.

8. That the Quarters bee of fitting breadth and length according to your forces; lest that (being made too little) the souldiers bee hindred from making good defence, by reason of the straitnesse of roome; or being too large, they want men to man so vast a Compasse.

9. Lastly and principally, that all the passages be well guarded, that the Enemy may not cut off your victuall. But because it seldome falleth out that a Campe hath all these conveniencies, you must labour to helpe that by Art, which nature affordeth not.

If there be any high ground neere, you may possesse it your selfe (if the condition of the place will permit it) or if there be some other convenient place neere hand, you may environ the highest ground with a Trench, and make Redoubts about it: but if the high ground bee on some passage, or place of importance, you may build a Fort upon it, and so take away the Enemies advantage.

When there is no River, you must be content to bring all necessaries to the Quarter by Waggones and Carts, taking good order that they be hired at reasonable prices; and for the avoyding of stench, the Carrion must be carried out of the Quarters, and there buried in pits thereunto appointed; and the Butchers must there kill their beasts, and bury all their filth.

The Woods, if they extend not far from the Campe, may be encompassed with Trenches (if it be not too chargeable) which then are usefull to afford wood for Huttes and other uses; but if they be too far off, or of too great a circuit, they may be cut downe, or fired.

If there be water which may be kept up by the besieged to overflow the Campe, you must seeke to prevent it by


by certaine bankes, or by diverting it another way, as necessity and experience will direct.

These things being well advised on, and having good information of the condition and scituation of the place which you intend to besiege, being come within 6. or 8. miles of the place, the Quartermaster Generall rides before with 80. 100. or 120. Horse to take a view of the Ground, and presently causeth a designe to bee made thereof, that so hee may the readilier and better divide the Quarters.

The Quarters are not alwaies alike, but according to the scituation of the place, and sometimes the Campe is divided into 2. 3. 4. or more Quarters. Their forme is according to the ground, and the quantitie of Regiments to be lodged in them.

C A P. III.

Of the Quarters for the Infanterie.

 O say nothing of the Quarterings used by the Ancients, as that of *Cyrus* briefly described by *Xenophon*; that of *Tamberlan* described in the *Arabicke* by *Albacen*, and translated into French by the Abbot of *Mortimer*; that of the *Romans* described by *Polybius*, whereby divers designs and delineations have been made, by *Patritius*, the Duke of *Vrbis*, *Robertellus*, *du Choul*, *Lipsius*, Sir *Henry Savile*, Sir *Clement Edmonds*, *du Praissac*, the Duke of *Roban* and others, (yet most of them differing in something or other) howsoever the moderne times goe upon the same grounds (as that the Generall should be lodged about the middle, to be equally neare to all places; to have his chiefe Officers, Magazine, Victuall and Baggage neare him; all these to be encompassed by the Horse, and they by the foote (because they are soonest ready to resist the suddaine assaults of an Enemy) I purpose to close with the matter in hand,

and to treat of the Quarterings now in use, and first of the quartering of a Company of foot.

Supposing the said Company to consist of 100 men, or there-about, there is a *Parallelogram* of ground allowed for them, containing 300 foote in depth and 24 foote in breadth: whereof 180 foote in depth is allowed for the souldiers Hutts, then 20 foote is appointed (behind them) for a streete; next that 40 foote in depth is for the Captaines lodging; then 40 foote for another streete betweene the Captaines lodging and the Suttlers, and last of all 20 foote in depth for the Suttlers, whereof the foremost 10 foote are for their hutts, and the other 10 foote for their kitchens: which together makes 300 foot.

Now the said 24 foote of breadth for the said Company as farre as 180 foote in depth is divided into 3 equall parts, namely 8 foote for one file (or Row) of Hutts, then 8 foote for a streete, and lastly 8 foote for the second file of Hutts.

Each file of Hutts is divided according as the souldiers desire to accommodate themselves; for one alone, there is 4 or 5 foote allowed in depth (or more if the number be smaller then 100 men) if two lodge together, they are allowed 6 or 7 foote; that so the more ground may be allowed to such souldiers as have their wife and Children there.

At the head of these 2 files of Hutts, that on the right hand is the Lieftenants Hutt, and that on the left is the Ensignes, both fronting towards the Allarme place.

All the rest of the Hutts have their doores opening into the said street of 8 foote wide, over against each other, saving the 2 last Hutts, which are for the Sergeants, whose doores open into the street of 20 foote broad.

Betweene every Hutt there should be 1 or 2 foote distance left, for the draine of the water, and also that (if any fire should happen) it may be the sooner quenched.

No souldier is suffered to have any fire in his Hutt (it being onely built of poles and straw) but such as will dresse

dresse their owne meate, are to doe it in the place appointed, behinde their Suttlers Huttes.

The Souldiers build their owne Huttes, the Country people thereabout furnishing them with materials.

The Captaines have the whole breadth of 24. foote for their lodgings, their Enclosure having an opening towards the streete of 20. foote, and another towards that of 40. foote, having a trench of 5. foote high, and a moate of 4. foote depth and breadth round about them, and set about with boughs. The custome (now adaies) is that they lodge in Huttes (as being more warmer and more durable) and use Tents for their kitchens and stables.

The Suttlers doores open into the said streete of 40. foote broad.

If the Company consist of 130. 140. or 150. men, they have ground allowed them for 3. files of Huttes; if of 180. or 200. for 4. files.

To make all the more plaine, observe in figure 1. *a.b.c.d.* whereby the quartering of one Company is demonstrated.

A Regiment consisteth of Companies, some being of 8. other some of 10. 12. 14. 16. 18. Companies. There is also a difference in the number of each Company, wherefore their Quarters must be proportioned accordingly.

Howsoever, the depth is alwaies 300. foote, without alteration, in the Prince of Orange his warres; so saith our Author. For the French manner of Encamping, though *de Ville* would have a Regiment of foote to take up 600. foote in depth, whereof 400. foote for the Souldiers Huttes onely. The Collonels lodgings are alwaies in the middle; so his Regiment is divided into 2. equal parts on each hand of him (unlesse there be an odde number of Companies) and a streete of 8. foote broad betweene each Company, into which no doores open.

* In his Fortifications.
lib. 2. part. 2.
Cap. 25.

He hath 68. foote of breadth (or more if the ground will

will permit) allowed him for his lodgings; (entrenched as the Captaines enclosures) and on each side a streete of 8. foote broad.

About 16. foote before the Lieutenants and Ensignes Huttes are croches set, with a pole a crosse at the top, there to place the Pikes of the Company, and by them a frame to lay their Muskets on, and there are the Colours also planted. But some hold it better (both for readines, in case of an Alarum, as also for keeping the Muskets cleane) that the Souldiers keep them in their Huttes.

The figure 1. representeth a Regiment of 10. Companies, of 100. men a peece, whereof

A. Is the Collonels lodging, of 68. foote breadth: some would have him to have 76. others 78. foote, but that is left to discretion.

B. Here some would lodge the Chaplaine, Quarter-Master, Surgeon, and the like: and leave onely C. for the Collonels waggons &c. Others better appoint B. and C. both for the same uses, namely B. for the Collonels kitchen, and C. for his waggons and stables.

D. The Captaines lodgings; whereof some thinke fit that that on the right angle bee for the Lieutenant Collonell, and that on the left, for the Serjeant Major.

Others, quartering the Collonels Company outwardest on the right of the Regiment, appoint the Collonels Captaine lodging just in the Reare of them in D. and the Lieutenant Collonels Company next to the Collonels lodgings on his left hand, and himselfe in K. for every Captaine in the Reare of his owne Company.

E. The Quartermasters lodging.

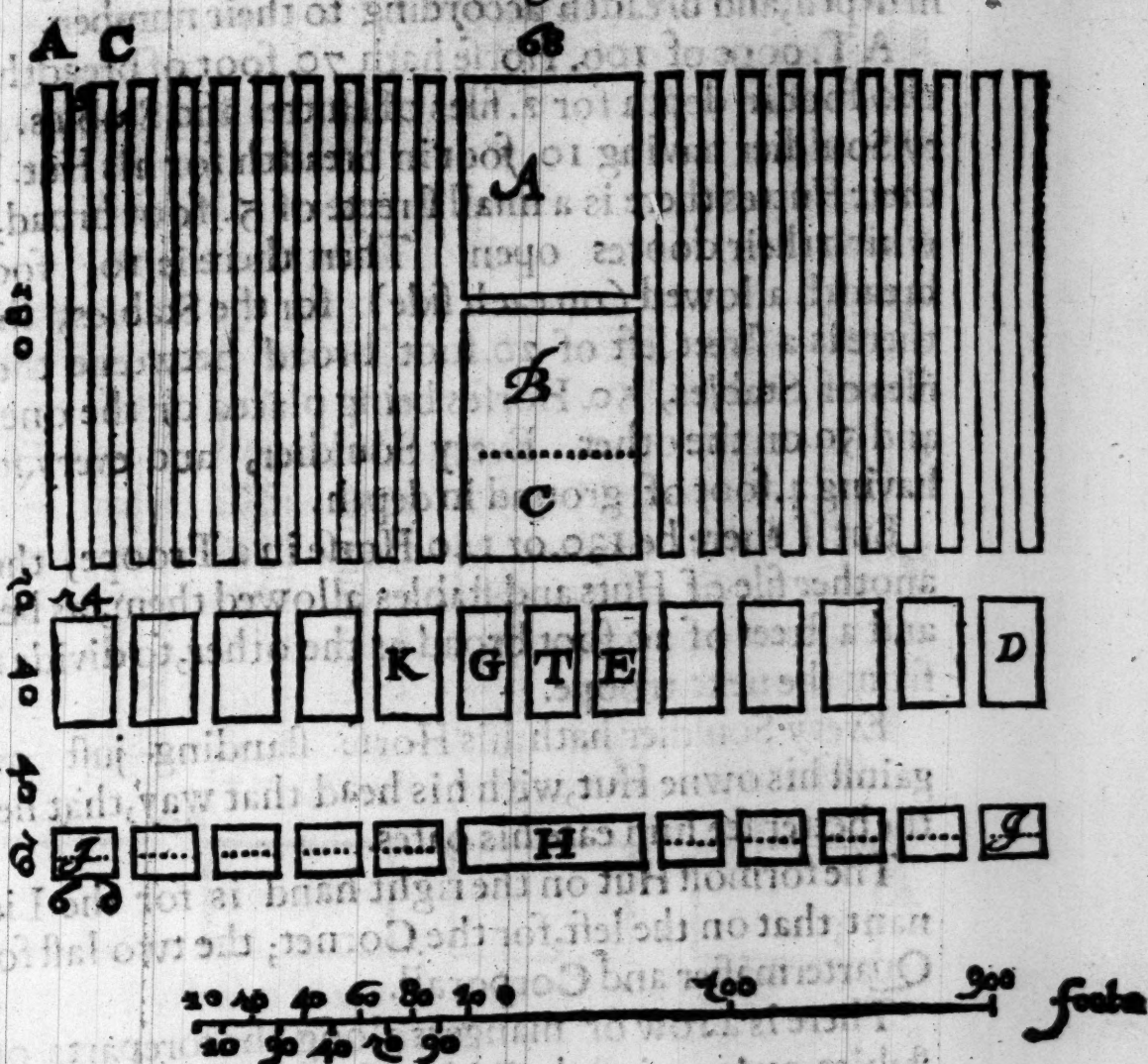
F. The Chaplaines lodging.

G. The Surgeons lodging.

H. The Provost Marshall his lodgings: but so much ground for him is judged to be too much.

I. The Sutlers Huttes: but such streets of 8. foote are held to be needlesse betweene their Huttes, causing too much losse of ground.

Figure 1.



The late manner of lodging the Captaines in the Reare of their Companies, (which change was since our Author writ his booke) is for two reasons. 1. That they may the better prevent, and also punish the disorders usually committed in the Suttlers Huttes. 2. That the Souldiers may have the freer and readier passage into the Allarum place.

CHAP. IIII.

Of Quartering the Cavallery.

THe Horse are usually quartered by themselves, by reason of inconveniencies when they bee quartered amongst the foot.

C

Every

Every Troope of Horse is allowed 300. foot of ground in depth, and breadth according to their number.

A Troope of 100. Horse hath 70. foot of breadth, and 180. foot in depth for 2. files of Huttres and Stables. Every Souldier having 10. foot in breadth for his Hut. Next their Huttres there is a small streete of 5. foot broad, into which their doores open. Then there is 10. foot in breadth allowed (on each side) for the Stables, so that there is a street left of 20. foot broad betweene the two files of Stables, 50. Horses being placed on the one side, and 50. on the other. Every Souldier, and every stable, having 4. foot of ground in depth.

But if there be 130. or 140. Horse in a Troope, there is another file of Huts and stables allowed them, as before, and a street of 20. foot broad as the other, to divide them from the next troope.

Every Souldier hath his Horse standing just over against his owne Hut, with his head that way, that he may the better see him eate his oates.

The formost Hut on the right hand is for the Lieutenant; that on the left, for the Cornet; the two last for the Quartermaster and Corporall.

There is a row of mangers along the foreparts of the stables, over against the Riders doores, and for every horse there is a partition, made of a pole, to divide them from each other.

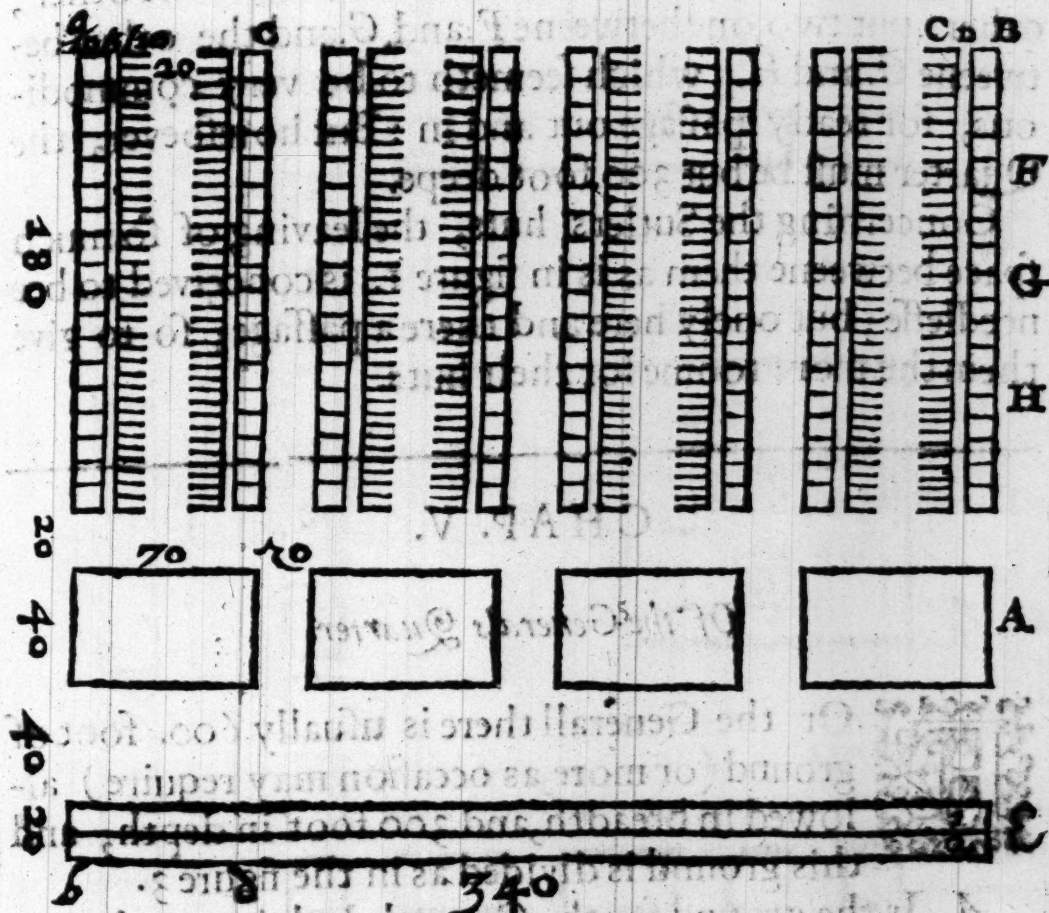
If the Army make any long stay, the horses are covered overhead (to keepe them from wet and cold) either with Canvas or straw, after the manner of a shade, but open before and behinde.

To make all the more plaine, see in figure 2. a. b. c. d. shew the manner of Quartering of one troope of 100. horse, (or thereabout) whereof the measures are mentioned in the figure.

A Regiment of horse consisteth (usually) of 3. or 4. troops, and are quartered as the said figure sheweth. The Collonell hath no more ground then the other Cap-
tains.

tainies. And untill of late, the Collonels of horse in the Prince of Orange his Armie had no more pay then the other Captaines; but now there is a larger stipend given to them, and the Sergeant Major.

Figure 2.



A. Are the lodgings for the Collonell and other Captaines, (which are entrenched as those of the Infantry) that on the right hand for the Collonell (as some hold,) yet others place the Collonell in the middle, and the Sergeant Major in *A*. Some make a troope of Curassiers to be 180. horse, and place the Lieutenant, Cornett, and Quartermaster, on the left of the Captaine.

B. The Souldiers huts: some make 2. foot of space betweene each hut, for the draine of water, and danger of fire, which I conceive to be very usefull.

C. The Stables.

D. The streete of 5. foot breadth, betweene the Soldiers huts, and the row of Mangers, being the forepart of the Stables.

E. Are the Sutlers huts; namely, 1. for the huts, and 2. for their fires and Cookery. Some would have three crosse streets (of 8. foot broad) to runne a crosse through the Quarter, at F. G. and H. from one side to the other; others put two, one betweene F. and G. and the other betweene G. and H. which seemeth to be very commodious, for ready passage out and in: But howsoever, the Quarter must be but 300. foot deepe.

Concerning the Sutlers huts, the leaving of so much space betweene them as is in figure 1. is conceived to be needlese; but onely here and there a passage; so to give them the more roome for their huts.

CHAP. V.

Of the Generals Quarter.

Or the Generall there is usually 600. foot of ground (or more, as occasion may require) allowed in breadth, and 300. foot in depth, and this ground is divided as in the figure 3.

A. Is the ground for the Generals lodging: wherein 1. is the Gate. 2. the dining roome. 3. the wardrobe. 4. the Bed-chamber. 5. the Councill-chamber. 6. the Kitchen, &c.

B. Is a large space of ground, wherein the Gentlemen meete, and recreate themselves with diverse exercises.

C. Are the huts, for the Wine-sellers, Beere-sellers, servants, and the like.

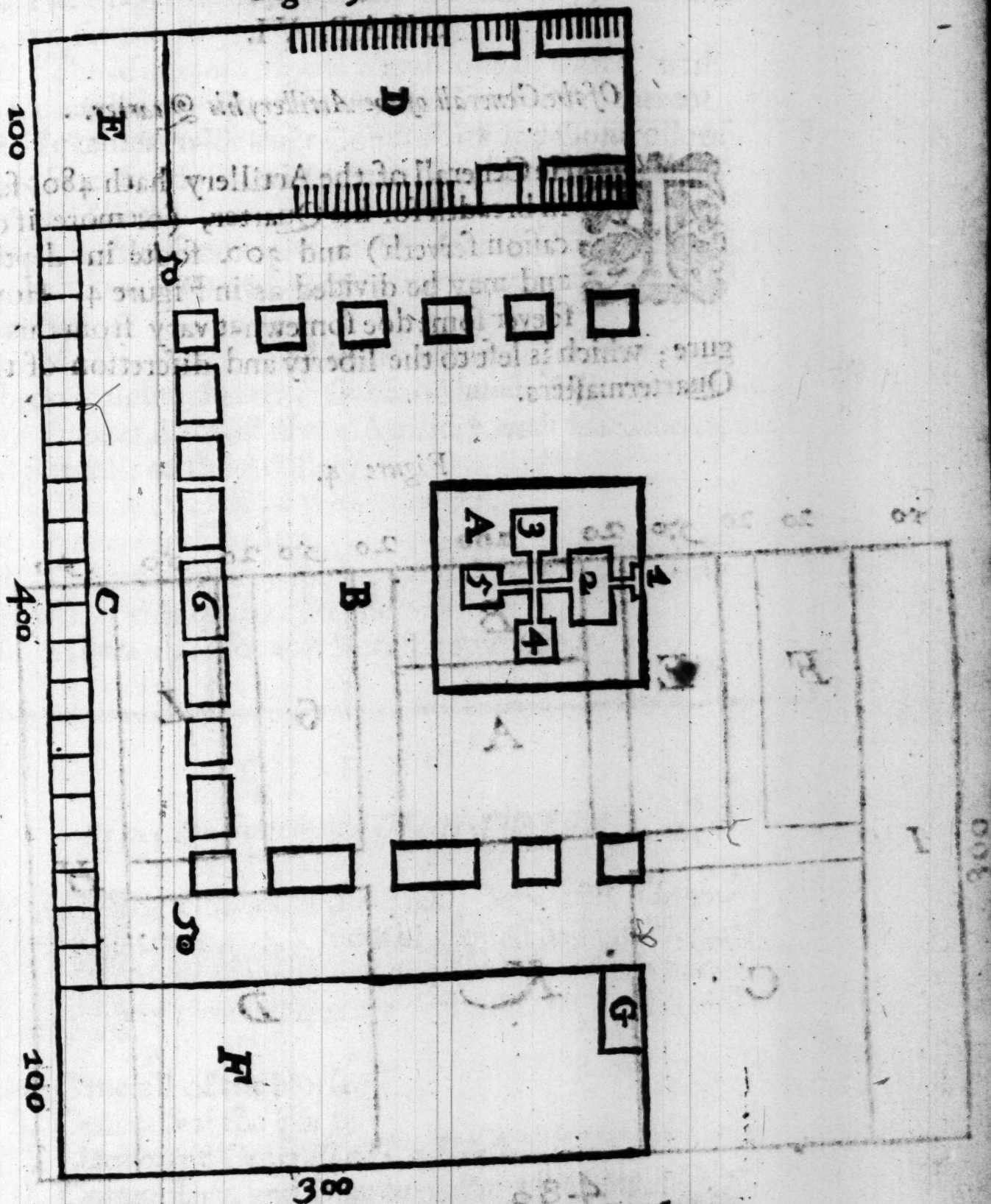
The other squares are tents for the Secretary, Steward, and other Officers and Gentlemen attending the Generall: also the Hall, Buttery, Pantery, &c.

D. The

the Encamping of an Army.

13

Figure 3.



D. The Stables. E. the stable for the Gentlemen.
F. a place for the waggons belonging to the Court:
G. Court du guard for the Generall.

C 3

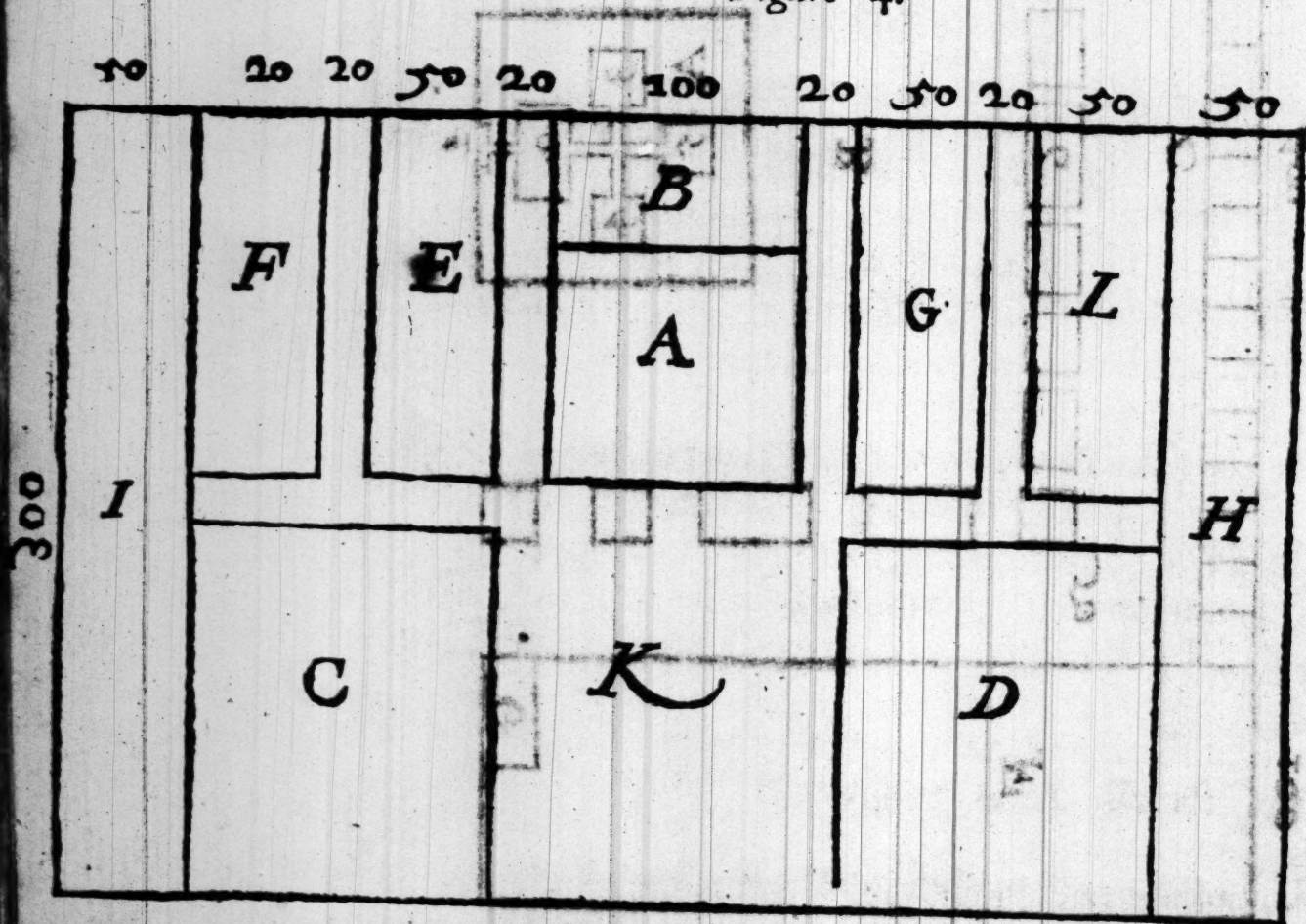
CHAP.

CHAP. VI.

Of the Generall of the Artillery his Quarter.

The Generall of the Artillery hath 480. foot in breadth for his Quarter, (or more if occasion serveth) and 300. foote in depth; and may be divided as in Figure 4. Howsoever some doe somewhat vary from this figure; which is left to the liberty and discretion of the Quartermasters.

Figure 4.



480

A. Is the Generall of Artillery his lodging.
 B. The lodging for the Lieutenant and the Gentlemen.
 C. The

C. The Magazine of Artillerie, Commissary, Controller, and Conductors.

D. The Magazine of the Munitions of warre, with the Commissary, Controllor, and Conductors thereof.

E. Ingeniers with their Conductors and Controllers of the Fortifications, with their Conductors, Commissary, and Clerke.

F. The Mr. Gunner, with his Cannoniers, Mr. of Fire-workes, with his Conductors, Petardier, and Battery Master.

G. Mr. Carpenter, his Lieutenant and Journey-men, Wheel-wrights, Smiths, Gabion Master, Wheelgreasers, Cooper, Provost of the Artillery with his Officers, and Surgeon of the Artillery.

H. Mariners to draw the Ordnance.

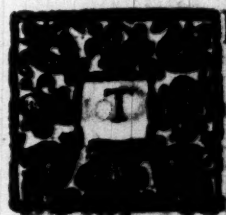
I. Pioners and Winers.

K. Common place, for men and Waggones, (having businesse in this quarter) to meete in.

L. A spare place for accidentall employment.

CHAP. VII.

Of the Quarters for the Officers of the Field.



The Officers of the Field, have 380. (sometimes 400,) foote of ground in breadth for their Quarter, and 300. foot in depth, whereof the divisions are demonstrated in Figure 5.

A. Generall of the Horse.

B. Generall of the Foote.

C. Lieutenant Generall of the Horse.

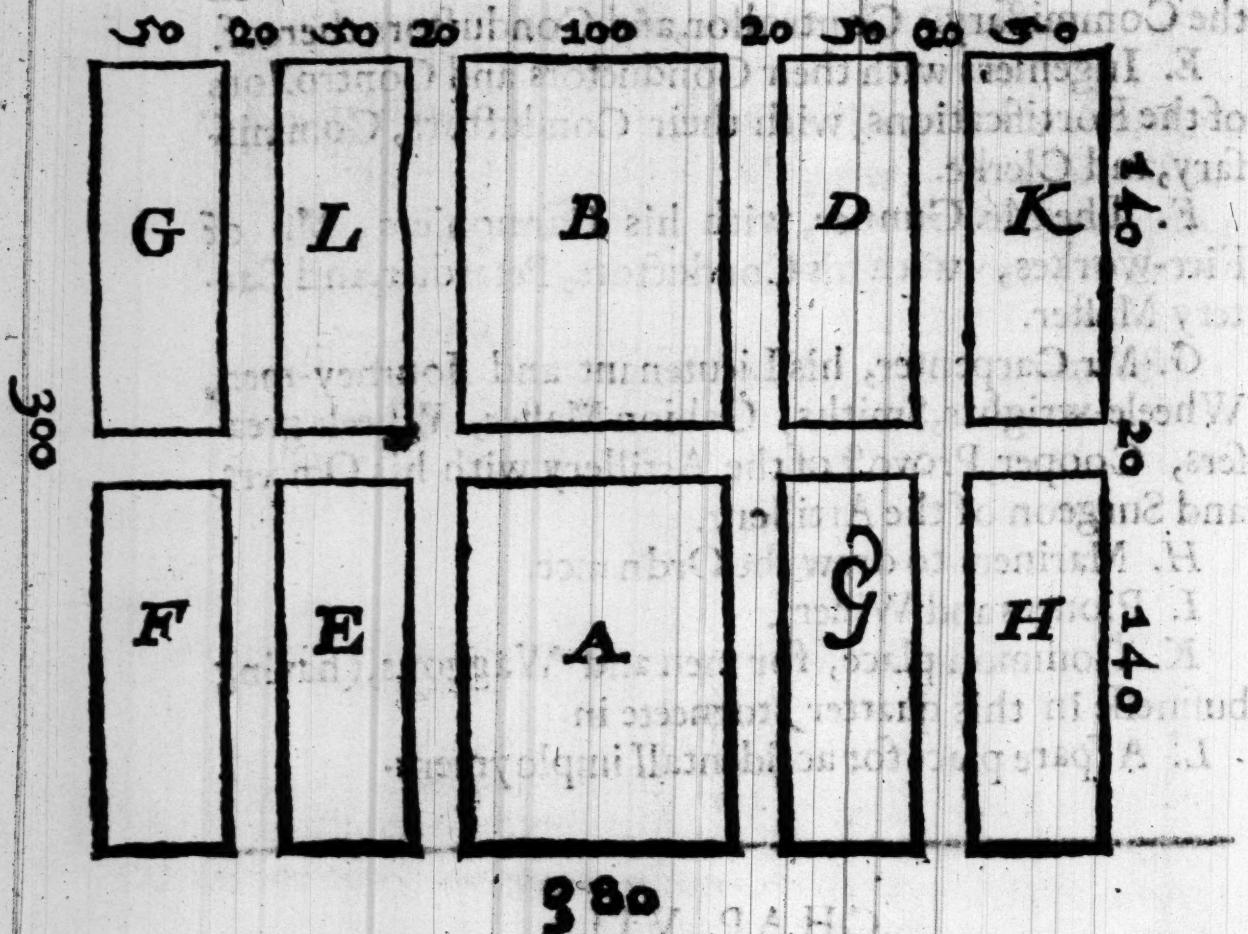
D. Commissary, and Quartermaster of the Horse.

E. President, Fiscall, and Secretary of the Counsell of Warre.

F. Provost Generall.

G. Ser-

Figure 5.



G. Sergeant Major Generall.

H. Quartermaster Generall, and the Commissary of the Treasury.

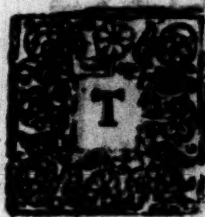
I. Commissaries of Masters.

K. Chaplaines, Physician, and Surgeon to the Court.

The spaces are streetes of 20. foot broad, to give convenient accessse for Waggon, Horse, and Foot; for all men to come to their lodgings. Some doe somewhat vary from this forme, in making this Quarter; wherein every Quarter master Generall may use his discretion.

CHAP. VIII.

Of the Quarter for the Waggon.



The Quarter for the waggon is alwayes 300 foote deepe, (as all other Quarters are) but the breadth must be proportioned according to the number of waggon, which sometimes take up 380 foote.

In this ground the waggon are placed in files (or Rowes) taile to taile, leaving a streete of 12 foote betweene them, wherein the waggoners may lay their forrage. But betweene every couple of files there runnes a streete of 24 foote broad, for passage through the Quarter.

To each waggon with 3 horses there is 12 foote allowed in depth and 18 foote in breadth, namely 6 foote for the breadth of the waggon, and 12 foote for 3 horses.

The waggoners usually lodge in their waggon, or under them, but such as will build hutts, may doe it in the said streete of 12 foote broad, behind their waggon.

And howsoever there be many waggon employed in the Armie more then are here quartered, it must be considered that many Officers doe keepe their waggon heere them, in their owne Quarters.

On the 4 sides of the Quarter are the Suttlers Hutts which follow the waggon, which have 12 foote of ground apeece, both in depth and breadth.

All which is more plainly shewed in figure 6. which containeth 10 files of waggon, of 14 waggon in each file, which makes together 140 waggon.

Sometimes the said streetes are not so broad as 24 foot (if there be want of ground) that so the more waggon may be placed in the Quarter.

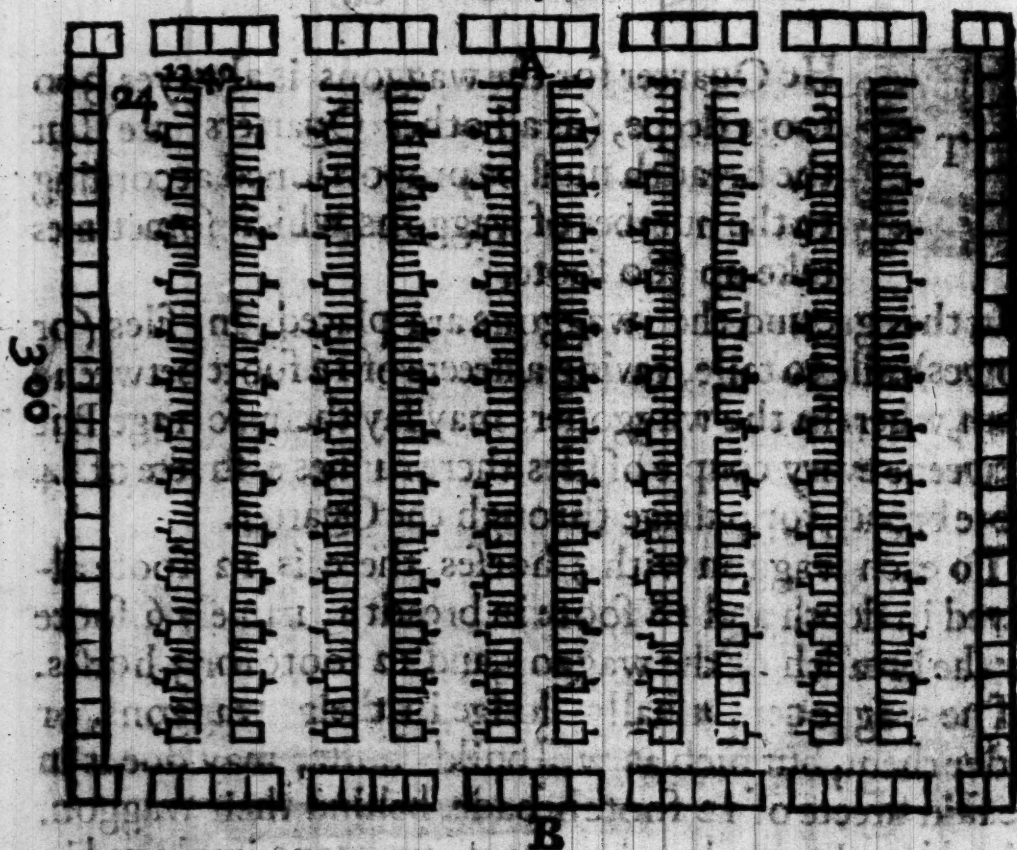
Some, instead of making the 4 sides of the Quarter to serve for Hutts, doe there place waggon, and leave an open space (instead thereof) of 60 foote broad, in the middle

D

middle

Figure 8.

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middle of the Quarter from B. to A. placing the Generall
of the waggons at the front thereof, allowing him 60
foote in depth: behind him they place the Lieutenant
of the waggons and the Secretary, (allowing them 40
foote in depth:) behinde these, the Conductors of the
waggons, giving them 48 foote in depth, the rest of the
ground serving for the Suttlers Huts.

CHAP.

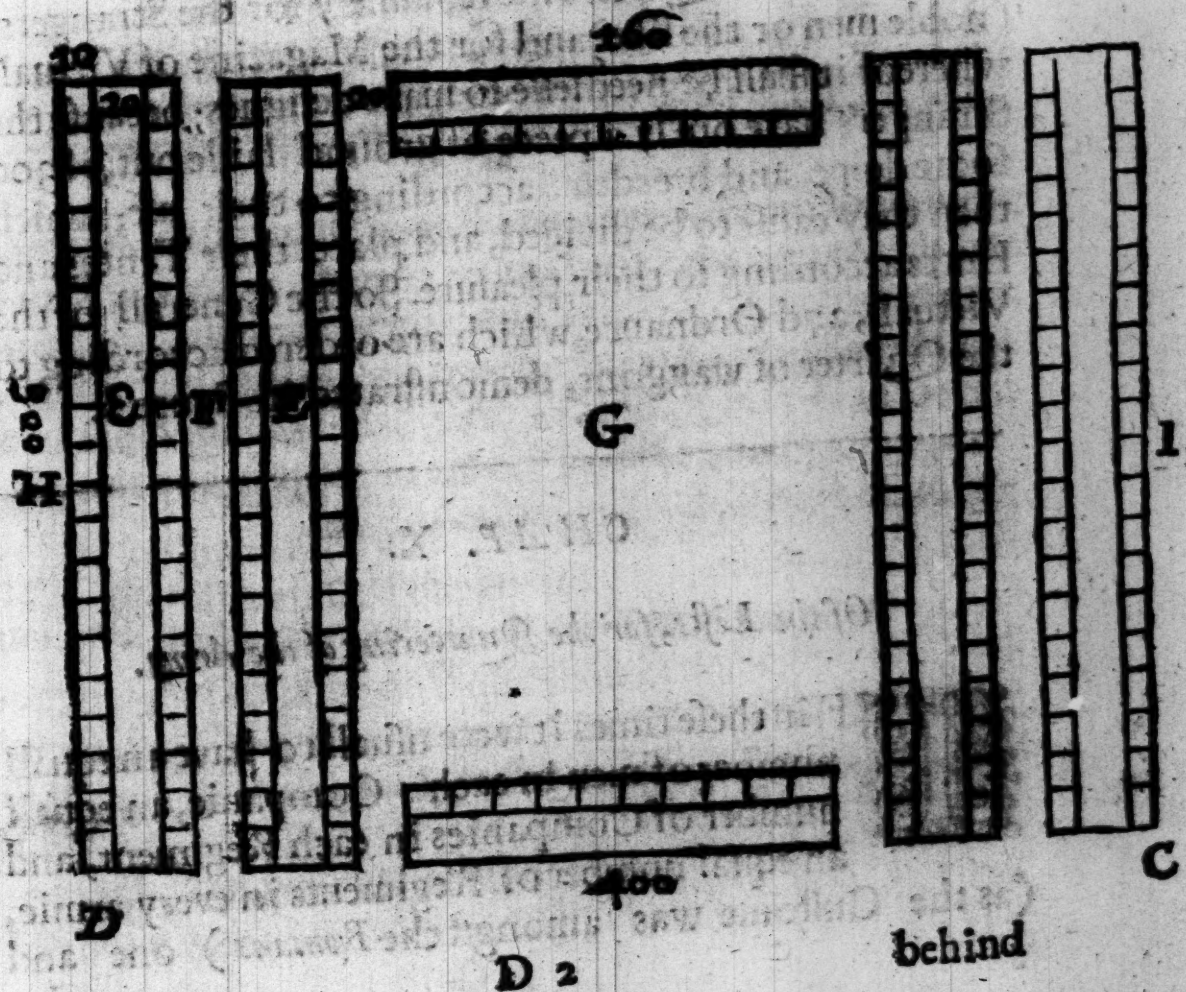
CHAP. IX.

Of the Market place, or Smilers Quarter.

OR the Market place there is usually about 400 foote of ground allowed in breadth, and 300 foote in depth, wherein there be divers double files, (or Rowes) of Huttcs made (for the most part 4 files on both sides of the Quarter) every Hutt having 10 foote in breadth, and a streete of 20 foote broad betweene each file of Huttcs.

The 2 files of Huttcs nearest to the market place are appointed for the Mercers, Drapers, and other shopkeepers, the next behind them are for Innes and Tavernes; those

Figure 7.



behinde them are for handy-crafts men; and the last for Butchers, Bakers, and the like, whereof the figure 7 is a designement.

From *A.* to *B.* (being the breadth of this Quarter) is 400 foote.

From *A.* to *D.* (being the depth) is 300 foot.

E. are spaces 20 foote broad, which are not streetes for passage, (as *F.* is) but are closed in at the endes, and serve to dresse meate in, or other conveniences for the Hutts: and into these spaces the Hutts have backdores to goe into.

F. is a streete of 20 foote broad, betweene each couple of files of Huttes. Some make a streete (of 20 or 24 foote broad) at *H.* and *I.* into the markett place.

G. is the market place, 200 foote broad

Some make 2 foote spare betweene each Hutt, for the draine of water.

There be two Quarters more, namely for the Strangers, (noble men or the like) and for the Magazine of Victuall, whereof it shall be needlesse to make designes; because the Strangers have onely a peece of ground laide out, of 300 foote deepe, and breadth according to their use; which then they cause to be divided, and place their Tentcs and Hutts according to their pleasure. So the Generall of the Victuall, and Ordnance, which are ordered according to the Quarter of waggons, demonstrated in figure 8.

CHAP. X.

Of the Lists, for the Quartering of the Army.

In these times it were usuall to have an equall number of men in each Companie, an equall number of Companies in each Regiment, and an equal number of Regiments in every armie, (as the Custome was amongst the Romans) one and the

the same forme, and the same proportion of ground would serve for the Quartering of the moderne Armies; But seeing that there is now a generall inequality of them, the Quarters must be proportioned according to the number of forces and Munitions, which are to be encamped; Therefore the Quarter master Generall must have exact Lists of them, whereby he may know how to proportion his Quarters.

To make this the more plaine, I purpose to propound the Lists of the late *Prince of Orange* his Armie, Anno 1610. quartered before *Gulick*, for an Example; (for which I am beholden to Master *Simon Steven*) which were as followeth.

1. A List of the Officers of the Army.
2. A List of the Regiments of the Infantry.
3. A List of the Regiments of the Cavallery.
4. A List of the Artillery.
5. A List of the Munitions.
6. A List of the Waggons.
7. A List of the Shipping.

CHAP. XI.

The List of the Officers of the Army.



His Excellence.

Count *Henry of Nassau* (now *Prince of Orange*)

Generall of the Horse.

Mounfieur *Marquette*, his Lieutenant.

Count *Ernest*, Generall of the foote.

Sedleveski, Sergeant Major Generall.

Mounfieur *Stakenbrooke*, Commissary Generall of the Horse.

Solemie, Quarter Master Generall.

Provost Generall.

President of the Councell of warre.
Fiscall.

Secretary.

Commisary of the Treasurie.

Monsieur *De-Bler*, waggon Master Generall.

His Lieutenant.

Quarter Master Generall of the Horse.

Physician to the Armie.

Chirurgeons to the Armie.

Provost of the water.

Three Chaplaines.

There be other Officers besides these, as namely of the Artillery, Munition, Victuall and shipping, but because they are quartered where their charge and command is, there is no cause of naming them in this List.

CHAP. 12.

The List of the Regiments of Infantry.

English.

Generall Vere his Regiment is of 15 Companies; whereof the Collonels Companie consisteth of 200 men, and 14 Companies, of 80 men apeece; which have 32 files of Huts. Their front takes up 580 foote of Ground, and have 1320 souldiers.

To calculate these, observe that the Collonels Company must have 4 files of Huts: the other Companies (being 14 of 80 men in each Companie) must have 2 files of Huts apeece, so 32 times 8. makes 256 foote; then for 32 streets of 80 foote broad, makes 256 foote more. Adde to these 68 foote for the breadth of the Collonels lodgings, so together it makes 580 foote.

The number of souldiers is expressed, that so each Regiment may know how many foote they must digge of the Retrenchment, as shall be shewed, in Chap. 23.

Gene-

Generall Cecill his Regiment is of 10 Companies, whereof the Collonels Companie consisteth of 200 men, and 9 Companies of 80 men apeece: which have 22 files of Huts; their front is 452 foote broad, and they are 920 souldiers.

Sir George Hollar his Regiment is of 10 Companies, whereof one Companie is of 90 men, 4 of 80 men apeece, and 5 of 70 men: these (being without place for the Collonell) have 20 files of Huts; their front 320 foote, and 760 souldiers.

Sir Hatton Choke his Regiment is of 10 Companies, whereof one is of 100 men, three of 90 a peece, six of 80. they have 20 files of Huts, their front is 388 foote, and 850 souldiers.

Scotts.

Collonell Hinderfon his Regiment is of 19 Companies, whereof one is of 100 men, 18 of 70 men apeece; they have 38 files of Huts, their front 676 foot, and 1460 souldiers.

French.

Monfieur Chastillon his Regiment is of 19 Companies, whereof the Collonells Companie hath 200 men, one Companie 100. and 17 of 80 men apeece. These have 40 files of Huts, their front takes up 708 foot of ground, and 1660 souldiers.

Monfieur Bathurst his Regiment is of 19 Companies, whereof the Collonells Companie hath 200 men, one Companie more of 100 men, and 17 of 80 men apeece; they have 40 files of Huts, their front is 708 foote and 1660 souldiers.

Dutch.

Couni Ernes his Regiment is of 6 Companies, the Collonells Companie hath 200 men, three more of 200 men apeece, one of 150. and one of 100. they have 21 files of huts, their front is 336 foote, and 1050 souldiers.

Walons.

Coun John Ern his Regiment is of 16 Companies, whereof the Collonells Companie hath 200 men, two

Com

Companies of 100. apeece, 13 of 70 men apeece: they have 34 files of Hutts, their front is 612 foote, and 1310 souldiers.

The foure Guards.

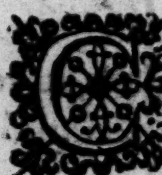
One Guard of 250 men, two of 200 apeece, and one of 150. these (being without Collonells place) have 16 files of Hutts, their front is 256 foote, and they are 800 souldiers.

Prisons.

Count William his Regiment is of 8 Companies, whereof the Collonels Companie hath 200 men, 7 Companies of 80 men apeece, which (being without Colonels place) have 18 files of Hutts, their front 288 foote, and they are 760 souldiers.

CHAP. XIII.

The List of the Regiments of Cavallery.

 Count Henry his Regiment is of three Troopes, whereof one is of 250 men, one of 150, and one of 70, they have tenne files of Hutts, and 430 foote in breadth: which is thus calculated.

Each couple of files (as was shewed Chap. 4.) hath 70 foote in breadth; so these 5 couple of files take up 5 times 70 which is 350 foote; then the 4 streets which runne betweene them of 20 foote apeece making 80 foote, make the front of the Regiment (as above-said) 430 foote. And after this manner the ground for the other Regiments of Horse is to be calculated.

The number of Horse-men in each Regiment is not specified at the foote thereof (as in the Regiments of Infanterie) because they are not imployed in the making of the Retrenchment.

Monsieur Marquette his Regiment is of 4 Troopes, whereof one of 100 men, three of 70 men apeece; they have

have 8 files of Hutts, and their front is 340 foote.

Monsieur Stakenbrooke his Regiment is of 4 Troopes, whereof one is of 100 men, one of 85, and 2 of 70 apeece, they have 8 files of Hutts, and their front is 340 foote.

Collonell Wagemans Regiment is of 3 Troopes, of 70 men apeece, they have 6 files of Hutts, and their front is 250 foote.

Collonell Ryboven his Regiment is of three Troopes, of 70 men apeece, they have 6 files of Hutts, and their front is 250 foote.

Collonell Marcellis Bax his Regiment is of 4 Troopes, they have (being 70 men apeece) 8 files of Hutts, and and their front is 340 foote.

Collonell La Sale his Regiment is of 3 Troopes, of 70 men apeece, they have 6 files of Hutts, and their front is 250 foote.

Collonell Smeltfing his Regiment is of 3 Troopes, of 70 men apeece, they have 6 files of Hutts, and their front is 250 foote.

Collonell Quaes his Regiment is of 3 Troopes, of 70 men apeece, they have 6 files of Hutts, and their front is 250 foote.

Count John his Regiment is of 3 Troopes, of 70 men apeece, they have 6 files of Hutts, and their front is 250 foote.

Collonell John Bax his Regiment is of 3 Troopes, of 70 men apeece, they have 6 files of Hutts, and their front is 250 foote.

E

CHAP.

CHAP. XIV.

*The list of the Artillery.**Ordnances.*

- 4 Whole Cannons, mounted on their carriages.
- 8 Demy Cannons, mounted on their carriages.
- 3 Field peeces, mounted on their carriges.

Powder, match and bullets.

- 153120 pound of powder.
- 3000 Cannon bullets.
- 6000 demy Cannon bullets.
- 40 Latten bullet Cases for whole Cannons.
- 20 Latten bullet Cases for demy Cannons.
- 1200 bullets of 12 pound.
- 3000 pound of match.

Spare Carriages and wheeles.

- 2 Carriages for whole Cannons.
- 4 Carriages for demy Cannons.
- 1 Carriage for a field peece.
- 8 Block carriages.
- 20 Fore carriages.
- 2 Wheeles for whole Cannons.
- 3 Wheeles for demy Cannons.
- 1 Wheele for field peeces.
- 5 Wheeles for fore carriages.
- 2 Carriage wheeles.
- 1 Sledge carriage.

Utenfills for the Ordnance.

- 45 Ladles.
- 45 Spunges.
- 45 Rammers.
- 4 Ladles for red-hot bullets.
- 4 Hooke tongues for red-hot bullets.
- 20 Budgebarrells with their mallets and dishes.
- 90 Coines.

2 Windlasses.

Windlasses with their appurtenances.

- 2 Windlasses compleat.
- 5 Martiners or racke engins.
- 2 Pullies.
- 8. Brasse pullies.
- 4 Crowe leavers.
- 8 Leavers.
- 4 Skids.
- 4. Rowles.

Thill harnisses.

- 41 Thill harnisses compleat.
- 41 Ridge ropes and belly bands.
- 900 Traces.
- 450 Collars.

Timber for the use of the Artillery.

- 150 Ioyfts.
- 54 Firre balkes of 22 foote long.
- 200 Deales.
- 200 Firre poles.
- 500 Hurdles.

Tooles.

- 50 Spades.
- 50 Shovells.
- 50 Axes.
- 50 Hatchets.
- 50 Hookes or hedging bills.
- 22 Pickaxes.
- 22 Mattockes.
- 80 Hand-pikes.
- 18 Crowe lewers.
- 2 Hand Rammers.
- 8 Slings to carry powder.
- 4 Hand barrowes to carry powder.

Nails.

- 4000 Large nails.
- 1000 Nails of 6 inches.
- 2000 Nails of 5 inches.
- 3000 Double middle nails.

6000 Single middle nails.

8000 Spikes.

All manner of bolts and lints-pins for the Carriages and fore-carriages.

Lights.

200 Pound of Candles.

12 Woodden Lanthornes.

4 Barrels of Beacon lights.

4 Lampes.

Cordage.

2 Whole Draught Ropes to draw the Ordnance by men.

3 Halfe Draught ropes to draw the Ordnance by men.

22 Ropes to guide the Ordnance.

20 Draught ropes to draw the Shipping by Horses.

3 Draught ropes to draw the Shipping by Men.

2 pound of twine.

6 pound of packthred to whip about the Lines.

Severall things.

1000 pound of iron for the Smith.

1 Chaldron of Seacoale.

Smiths tooles.

Carpenters tooles.

80 Haire Tiltes.

140 Sheepes skinnes.

6 Leather buckets.

570 Square baskets.

400 pound of hogs grease.

6 Grease boxes.

Draught Horses for the Artillery.

For 4 whole Canons, on their blocke Carriages,

11 couple a peece, is, 88

For 8 demy Canons, at 9 couple a peece, is 144

For 3 field-peece, at 5 couple a peece, is 30

For 6 Carriages for whole Canons, at 4 couple a peece, is 48

For 4 Carriages for demy Canons, at 3 couple a peece

is,

24

For

For 2 blocke carriages, at 1 couple a peece,	4
For 8 Drugges at 1 couple a peece,	16
For 6 Waggon to carry Harquebuses a crocke, 4 couple apeece,	48
For 8 Mill-waggon, at 4 couple apeece,	48
Spare Horses, 20 couple, is	40
Summe of the Draught Horses,	490.

Officers of the Artillery.

The Generall of the Artillery *Kessel.*

His Lieutenant *Grena.*

Controller of the Artillery *Monier.*

Commissary of the Artillery, *Wtenbrouck,*

10 Gentlemen of the Ordnance.

25 Conductors.

6 Ingeniers (namely *A.B.C.*) every man having his Conductor.

2 Controllers of the Fortifications, (namely *A.B.C.*) each of them having his Conductor, Commissary, and Clarke.

The Master Gunner, *A.B.*

36 Canoniers.

The Master of the fireworkes, with 2 Conductors.

The Petardier.

2 Battery Masters.

The Master Carpenter, *M.N.*

His Lieutenant, *O.P.*

12 Journymen Carpenters.

2 Whelewrights.

2 Smiths.

1 Gabion maker.

2 Whele-greasers.

1 Cooper.

The Provost of the Artillery, with his servants.

The Chirurgeon of the Artillery.

The Commissary of the Draught Horses.

His 11 Conductors, divided as followeth: To each of the 6 peeces of whole Canon, 1. To each of the 3 field

- field peeces, 1. To the carriages and fore carriages, 1.
 2 Capitaines of the Pioners, A.B. and C.D.
 100 Pioners, 50 to each Capitaine.
 The Capitaine of the Miners, E. F.
 25 Miners.
 4 Sea Capitaines.
 240 Mariners, 60 to each Capitaine.
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CHAP. XV.

*The List of the Munitions of Warre.**Powder, Match, and Bullets.*

- 45000 pound of Powder for Muskets.
 45000 pound of Match.
 45000 pound of cast Musket Bullets.

Armes.

- 200 Muskets.
 800 Whole Pikes
 50 Halfe Pikes
 50 Targets.

Tools.

- 10000 Spades.
 2000 Shod shovels
 1000 Mattocks
 500 Pickaxes
 1200 Axes
 600 Hatchets
 600 Hookees or hedging bills.
 4 Crowes of iron.

Timber.

- 1600 Deales
 25 Split Deales
 1500 Firre Sparres
 100 Firrebalkes of 22. foote
 100 Firrebalkes of 25 foote.

Nails.

Nailles.

2000 of 7 inches.
2500 of 6 inches.
3000 of 5 inches.
20000 double middle Nailles.
20000 single middle Nailles.
10000 large Spikes.
10000 Spikes.

Lightes.

100 pound of candles.
8 Wooden Lanthornes.
2000 Beacon Lights.
6 Lampes.

Severall things.

1000 Wheele-barrowes compleate.
100 Spare Spindles.
30 Rush-bridges, with their cordes.
50 Haire Tiltes.
100 Square baskets.
600 Bagges to carry earth.
30 Ship-pullies.
100 Quartering staves.
10 Draught lines to draw up the Munitions.
1200 pound of line, of all sorts, from penny

lines upwards.

8 Musket-bullet-mouldes, of 12 holes a peece.
8 Melting-ladles.

Officers of the Munitions of Warre.

The Commissary, A.B.
20 Conductors.

CHAP.

CHAP. XVI.

The List of the Waggon.

IN the List of the Waggon, the same order is observed as before, namely, first, the Waggon for the Officers of the field; secondly, for the foote; thirdly, for the Horse; fourthly, for the Artillery; fifthly, for the Munitions; and sixthly, for the Victuall.

Waggon for the Officers of the field.

For his Excellence.	66
For Count Henry, Generall of the Horse,	30
His Lieutenant <i>Maquette</i> ,	6
Sergeant Major Generall, <i>Sedleneski</i> ,	3
Commissary Generall of the Horse, <i>Stakenbrooke</i> ,	2
Quarter-master Generall, <i>Solemne</i> ,	1
Provost Generall,	3
Advocate, Fiscall, and Secretary,	2
Commissary of the Treasury,	2
Waggon-master, Generall <i>Doub'et</i> , his Lieutenant,	
Conductors, Wheelwrights, Smiths, and Cordage,	7
Quarter master Generall for the Horse, <i>A.B.</i>	1
The Provost of the Water,	1
Two Surgeons of the Armies,	2
Three Chaplaines.	3
<i>Summe of the Waggon for the Officers of the field,</i>	129

Waggon for the Infantry.

For 12 Captaines of Generall <i>Vere</i> his Regiment,	12
2 Captaines of Collonell <i>Ogles</i> Regiment,	2
Generall <i>Cecil</i> ,	12
2 Collonels, 4 Waggon a peece,	8
3 Lieutenant Collonels, 2 a peece,	6
3 Sergeant Majors, 1 a peece,	3
3 Quarter-masters, 1 a peece,	3
3 Provosts, 1 a peece,	3

2 Chap-

2 Chaplaines, one apeece,	2
The Surgeon Mr. James.	2
52 Captaines,	52
Collonell Chastillon	6
His Lieutenant Collonell, and Sergeant major,	2
Surgeon and Provost,	1
19 Captaines,	19
Collonell Bethune,	6
His Lieutenant, and Sergeant major,	2
Surgeon and Provost,	1
19 Captaines,	19
The Lieutenant Collonell of Count Ernest,	1
Sergeant major, and Quarter master,	1
Surgeon and Provost,	1
6 Captaines,	6
Count John Ernest;	5
His Lieutenant Collonell,	1
Sergeant major, and Quartermaster,	1
Surgeon and Provost,	1
16 Captaines,	16
4 Captaines of the 4 guards,	4
The Lieutenant and Ensigne of his Excellences guard,	1
For the Armes of the said guard,	1
The Lieutenant Collonell of the Frisons,	2
Sergeant major, and Quartermaster,	1
8 Captaines,	8
The Commissary of the Waggon.	1

Summe of the Waggon for the Foote, 212

Waggon for the Cavallery.

10 Collonels of Horse, at 1 apeece,	10
The Lieutenant and Cornet of his Excellence his Troope,	1
For the Armes,	1

Summe of the Waggon for the Horse, 12

Waggon for the Artillery.

40000 pound of Powder,	59
E	800

800 C

1600

403

60

Fort

bullets.

Lad

4

T

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Th

Bac

 Al_2

12

2

2 Smiths,

2 Smiths,	1
Provost of the Artillery,	1
Surgeon of the Artillery,	1
Bridge-master,	1
Commissary of the draught Horses,	2
2 Captaines of the Pioners,	2
Captaine of the Miners,	1
4 Sea Captaines,	4

Summe of the Waggon for the Artillery, 39

Summe of all the Artillery, 237

Waggon for the Munitions of Warre.

10000 pound of Powder,	20
25000 pound of Lead,	20
10000 pound of Match,	20
Muskets furnished, Pikes, Targets, Moulds, Mouldes,	7
and Carles,	7
10000 Spades, and 50 Shovels,	20
400 Mattookes, 200 Pickaxes, 400 Axes, 300 Hatchets,	4
500 hookes,	4
Nails of all sorts,	1
100 pound of Candles, 10 Lanthornes, 2000 Beacon	2
lights, 6 Lampes,	2
100 Wheele-barrowes,	4
10 Rush-bridges with their cordage,	5
100 Square baskets, and 100 quartering staves,	1
For the Commissary A. B. and his Conductors,	2
<i>Summe of the Waggon for the Munitions of Warre, 108</i>	

Waggon for the Victuall.

For the Victuall,	242
For the Commissary of the Victuall, M. N.	1
For his Conductors,	1

Summe of the Waggon for the Victuall, 244

Summa summarum of the Waggon.

For the Officers of the Field, 129

For the Foot, 212

F 2

For

For the Horse,	12
For the Artillery,	237
For the Munitions of Warre,	108
For the Victuall,	244
<i>Summe totall of the Waggones,</i>	942

CHAP. XVII.

The List of the Shipping.

According to the Order before mentioned, first
are to be set downe, the

Ships for the Officers of the Army.

His Excellence,	20
Count <i>Henry</i> , ships and boates,	12
The Captaine Generall of the watch <i>Sedleneski</i> ,	1
The Quarter master Generall <i>Solenne</i> ,	1
The Provost Generall with his servants & Mariners,	1
The Advocate, Fiscall, and the Secretary to the Coun- cell of warre are to be shipped in a Munition ship.	
The Commissary of the Treasury,	1
The Waggon Master with his Conductors,	1
The 2 Surgeons of the Army, and the Apothecary,	1
<i>Summe of the Ships for the Officers of the field,</i>	38

There be other Officers, as of the Artillery, Munitions
of warre, Victuall, and of the shipping; but seeing that
they accommodate themselves in those ships, which are
laden with the goods which they have the command of,
they need no other ships.

Ships for the Infantry.

For the Regiment of <i>English</i> ,	2
For the Regiment of <i>Scots</i> ,	2
For 2 Regiments of <i>French</i> , 3 ships apeece,	6
For the Regiment of <i>Dutch</i> , under Count <i>Ernest</i> ,	1
For the Regiment of <i>Wallons</i> ,	2
For	

For the foure guards,	1
For the Armes and baggage of the guardes,	1
For the Regiment of Frisons,	1
For the English marching with Count Henry,	2
For the Regiment of Lieutenant Collonell Meetker-	1
cken,	

Summe of the ships for the Infantry, 19
Shippes for the Cavallery,

For 11 Regiments of Horse, 1 ship apeece,	11
For the Armes and baggage of his Excellence his	
Troope,	1

Summe of the ships for the Cavallery, 12

Ships for the Artillery.

These are of three sorts, 1 for the Officers of the Artillery; 2 for the brasse Ordnance, with their carriages and blocke carriages; 3 for the munitions of the Artillery.

Ships for the Officers of the Artillery.

The Generall of the Artillery,	1
The Ingeniers, Controllers, and Conductors of the	
Fortifications, and of the workes,	1
The Ingenier, A.B.	1
The Master Gunner, with all the Canoniers,	1
The Master Carpenter Generall, with all his Worke-	
men,	1
The Commissary of the draught horses, with his	
Conductors and Utenfils,	1
Wheelewrights, Smiths, Ropemakers, and their mate-	
rials,	1
Two Captaines of Pioners, makers of Fireworkes,	
and Petardiers,	1

Summe of the ships for the Officers of the Artillery, 8

Ships for the brasse Ordnance, with their carriages, and
blocke-carriages.

These peeces with their carriages are shipped in the ships

Ships for Bridges, which shall be hereunder mentioned,

Ships for the Munitions of the Artillery.

960 Barrells of Powder, in 4 Carvels, is	4
3000 Bullets of 48 pound weight in 4 Hoyes,	4
6000 Bullets of 24 pound, in 4 Hoyes,	4
For the Petards and appurtenances, 1 Hoy,	1
For the Cordage, Match, Latten bullet-cases, and other things, one carvell,	1
For 500 hurdles and some baskets, one carvell,	1
150 Firre Joylts, and some baskets, one carvell,	1
200 Deales, and 200 Firre poles, 1 Ship,	1
For some Cordage, collers, Ladles, &c. 1 ship,	1
1200 Bullets of 12 pound, one small Hoy,	1
<i>Summe of the shipping for the Munition of the Artillery,</i>	<i>19</i>
<i>Summe of the Ships for the Artillery,</i>	<i>19</i>

Ships for the Munitions of warre.

45000 pound of Powder,	
45000 pound of Match,	
45000 pound of Musket-bullets,	
50 Haire Tilts,	
8 Mouldes,	
8 Ladles,	
All which was laden in 4 shippes of 40 Tunne apiece,	
and one Hoy together,	
200 Muskets,	
800 Pikes,	
50 Halfe pikes,	
50 Targets,	
12 Lanthornes,	
100 pound of candles,	
6 Lampes,	
2000 Beacon Lights,	
Nails of all sorts,	
100 Quartering staves,	
600 bags to carry earth,	

10 Draught Ropes,
12000 pound of Cordage,
30 Ship-pullies,
100 Square baskets,

All which was laden in a Hoy, is

30 Rush-bridges, with the cordage thereunto belonging, laden in a ship of 40 Tunne, and a Hoy, is

10000 Spades,
2000 Shovels,
1000 Mattockes,
500 Pick-axes,
1200 Axes,
600 Hatchets,
600 Hookes,

All which was laden in three Hoyes, is

10000 Wheele-barrowes,
100 Wheelles,
100 Spindles,
25 Split Deales,

All which was laden in three ships of 40 Tun apeece, 3

1500 Deales.
1500 Firre poles,
200 Firre balkes,
10 Draught Ropes,
4 Crowes of Iron,

All which were laden in three ships of 40 Tun apeece, 3

Summe of the ships for the munitions of warre, whereof
11 were of 40 Tunne, and 6 Hoyes together, 17

Ships for the Victuall.

These were in all,

Ships for Bridges.

17 Lyters for the Ordnance with the appurtenances, 17

One great Ferry Hoy,

One small Ferry Hoy,

6 Boates of small bridges, with their waggons, and

horse furniture,

One

One flat bottom'd Boate to carry the waggons and
their appurtenances aboard the Hoyes, 1

Summe of the Bridgeships, 26

The Persons belonging to the Bridge-ships, which accommodate themselves in their owne shippes, are as followeth.

The Bridge-master. His Lieutenant. 83 Lytermen, thus divided; In 15 great Lyters, 4 apeece. In 2 smaller Lyters, 3 apeece. In the great Ferry Hoy 3. In the small Ferry Hoy 2. With every 6 Boates for Bridges 1. In the flat bottom'd boate 3. Ship-Carpenters 3.

Ships for severall uses.

The Commissary of the shipping, with his conductors, 1

One ship and 4 small Hoyes for the Conductors and Commissaries of shipping, and for things accidentall, 5

6 Small Hoyes to move up and downe, for Messengers and wounded Souldiers. 6

Summe of the ships for severall uses, 12

Summa summarum of the shipping.

For the Officers of the Field, 38

For the Infantery, 19

For the Cavallery, 12

For the Artillery, 27

For the Munitions of warre, 17

For the Victuall, 66

For the Bridges, 26

For severall uses, 12

Summe totall of the shipping, 217

Here is no particular List of the Victuall mentioned, for that the States Army is usually supplied by Sutlers, and Merchants, and the neighbour Townes.

CHAP.

CHAP. XVIII.

Of designing the Quarters for the Army.

Seing that divers Quarters are to be made for the said Armie (as is for the 11 Regiments of Infanterie, & as many for so many Regiments of Cavallrie, besides the other Quarters) it were a worke of infinite trouble to make a designe for the convenient placing of them, and that in haste, (for that upon viewing of the ground, it is presently to be done) but that there is this helpe to be used.

Every one of the said Quarters must be drawne (before-hand) upon severall peeces of fine past-board (such as our playing Cardes are made of) which must be so cut as that they all may have 300 foote in depth, and so many foote in breadth as every list will require. As for Example, Generall Vere his Regiment having 300 foote in depth and 580 foote in breadth, (as was shewed in Chapter 12) you must cut a peece of past-board of just such a scantling (according to some small scale) and then write upon it the Collonells name, and the measure of the breadth, as here is shewed. (Some would also have the number of Companies and of the Files of Huts requisite for them to be mentioned on every past-board, as you see it in Chapter 21. Figure 13. which I conceive to be commendable.) And so for all the rest.

Figure 8.

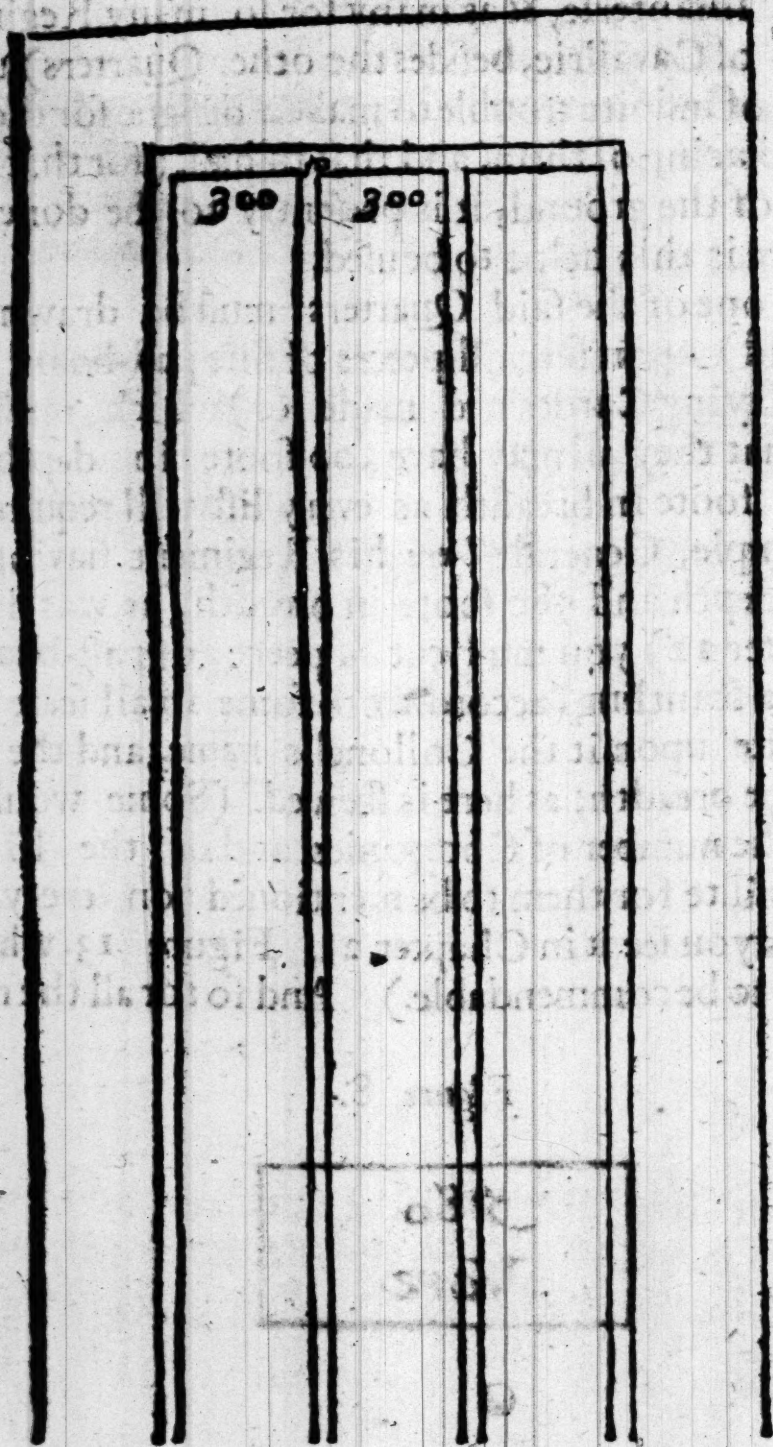


G

All

All these past-boards you must so often move and remove, untill they lye in such order as ye desire to have them. And for the more ready doing of it, you must draw certaine parallell lines upon a sheete of paper, of 50 foote distance, for the streets, with spaces of 300 foot,

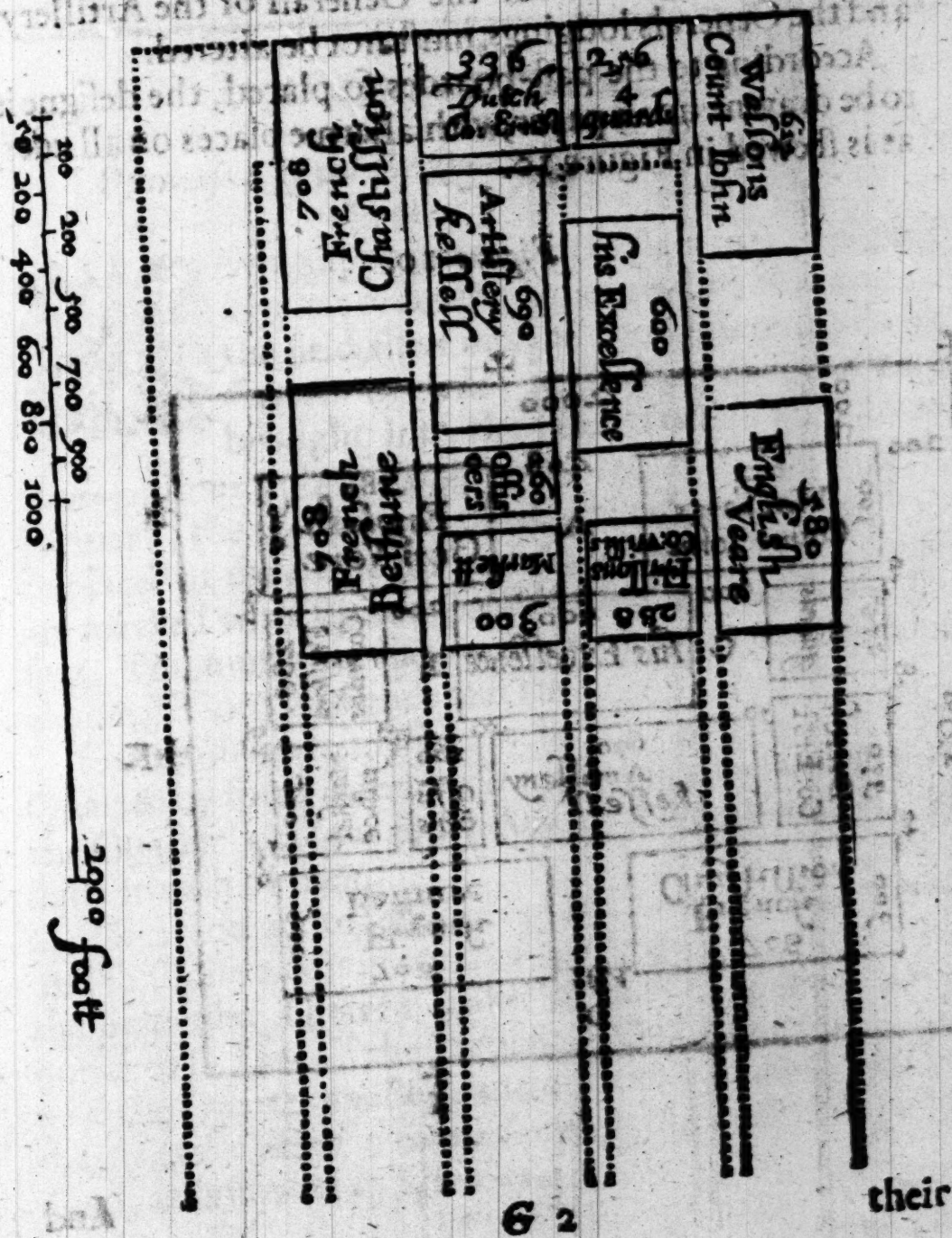
Figure 8.



(as is shewed in figure 8.) thereby the better to lay the said past-boards in order.

In making the said Quarters, his Excellencie having caused the ground to be viewed, resolved not to quarter the Horse, the waggons, the English under Generall Cecill, nor the Scots, within this Campe: so the past-boards of

Figure 9.

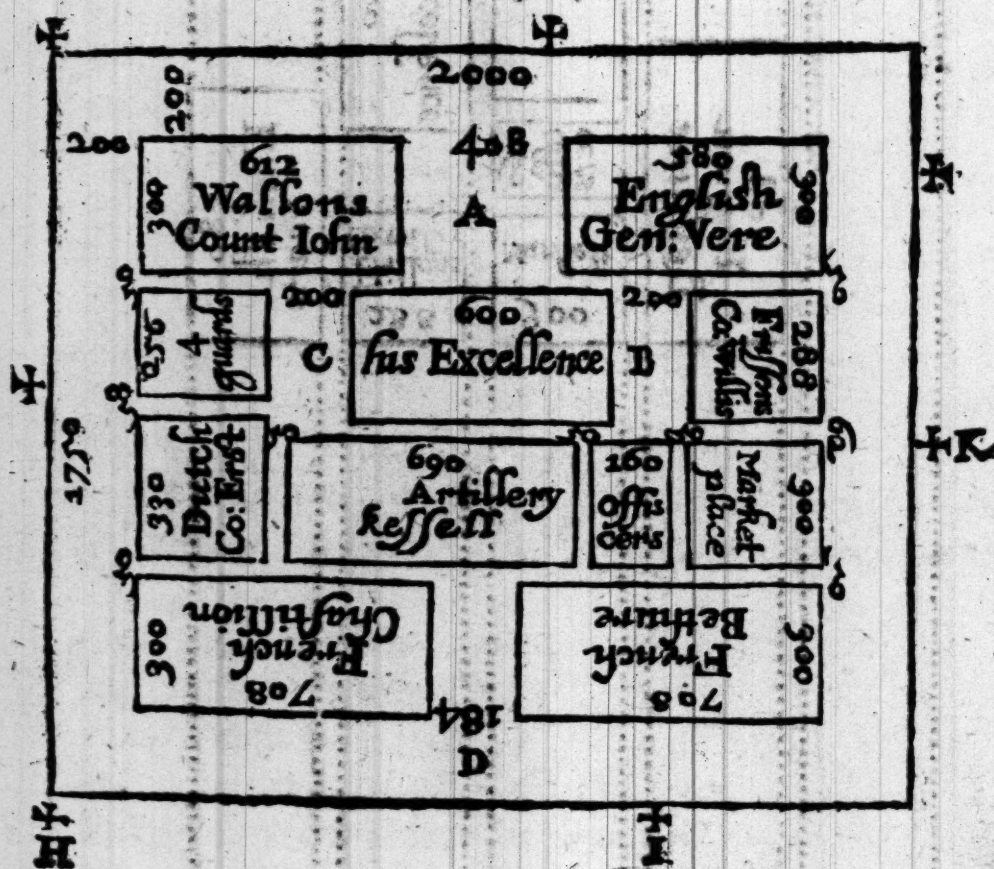


their Quarters being laid aside, the rest were ordered as in the 9. Figure.

Yet if in the placing of these Quarters, you find that the Quarter would be more regular, if some of them were somewhat enlarged or lessened; in such cases you may somewhat alter the Quarters of the Waggon, Market, Artillery, Victuall, Strangers, and the ground for the Generalls Quarter. But the Regiments of foote and Horse, the Quarters for the Generall of the Artillery, and the Generals lodgings, must not be altered.

According to the past-boards so placed, the designe is to be drawne upon paper, with allarme places on all sides, as is shewed in Figure 10.

Figure 10.



And

And of these designs it is good to have some in readinesse before hand, some with Cavalry, and other some without, to stand in stead on a sudden occasion.

A. Is a voyd space of ground, for men to meet and walke in, which have businesse at Court.

B. and C. were spaces left for Count *William*, and Count *Henry of Nassau*.

D. is the Allarme place, on each side of the Quarters.

CHAP. XIX.

Of measuring out the Quarters in the Field.

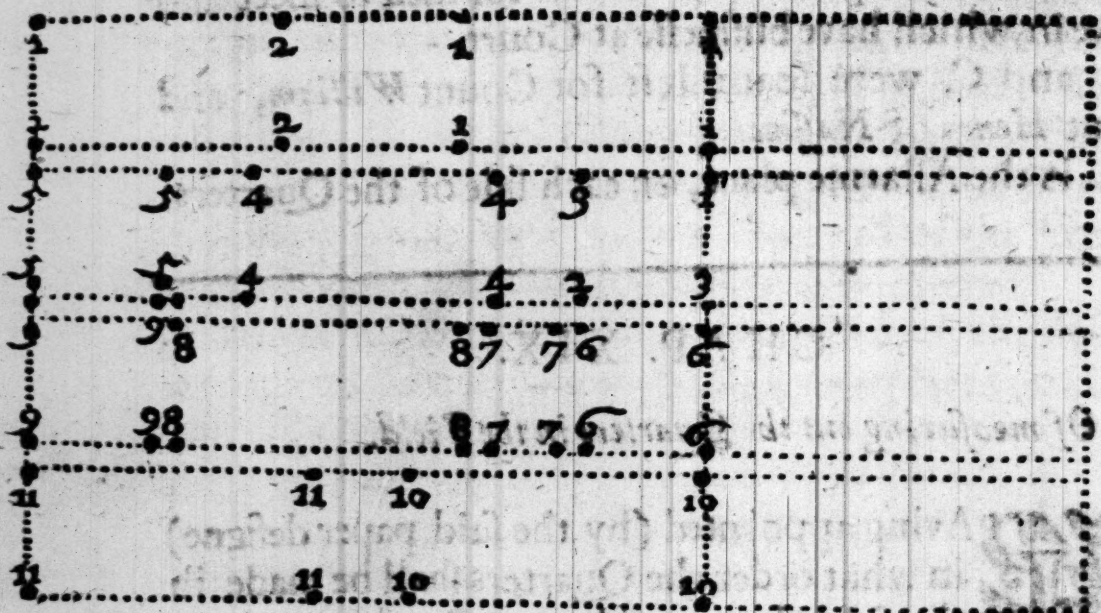


Aving appointed (by the said paper designe) in what order the Quarters shall be made in the field, there must be 150. Quartering staves (more or lesse, according to occasion) brought into the field: (which are painted staves of some 9. foote long, each of them having a little banner at the top, (as was usuall among the *Romans*) to be placed at the Angles of each Quarter. Of these, foure are marked with figure 1. foure with 2. and the rest so rising. You must also have a surveying instrument and a chaine, divided into rods and feete.

Then you are to marke out the circuit of the whole Quarter, by foure exterior lines; so that each corner of the Quarter make a right Angle; setting a quartering staffe in each of them.

Then you are to measure out the particular Quarters; and so soone as the ground of one Regiment be laid out, the particular Quarter-master of that Regiment takes notice of it (for all the particular Quarter-masters, attend the Quarter-master Generall in this work;) So (all the quarters being measured out) the said staves will stand, as is shewed in figure 11.

Figure 11.



CHAP. XX.

Of subdividing the particular Quarters.

BEcause this worke is to be performed with all possible expedition, every Quarter-master presently falls to subdivide his quarter; Suppose the Angles of it to be *A.B.C.D.* (in the figure following) he divides the ground between *A.B.* along by a line, strained from those two staves, from 8.foote, to 8.foote, (as was shewed in *Chap. 3.*) according to his number of men, putting downe a sticke or bough at each of them, as the prickes shew in figure 12.

That done, he doth the same in the way of the said ground,

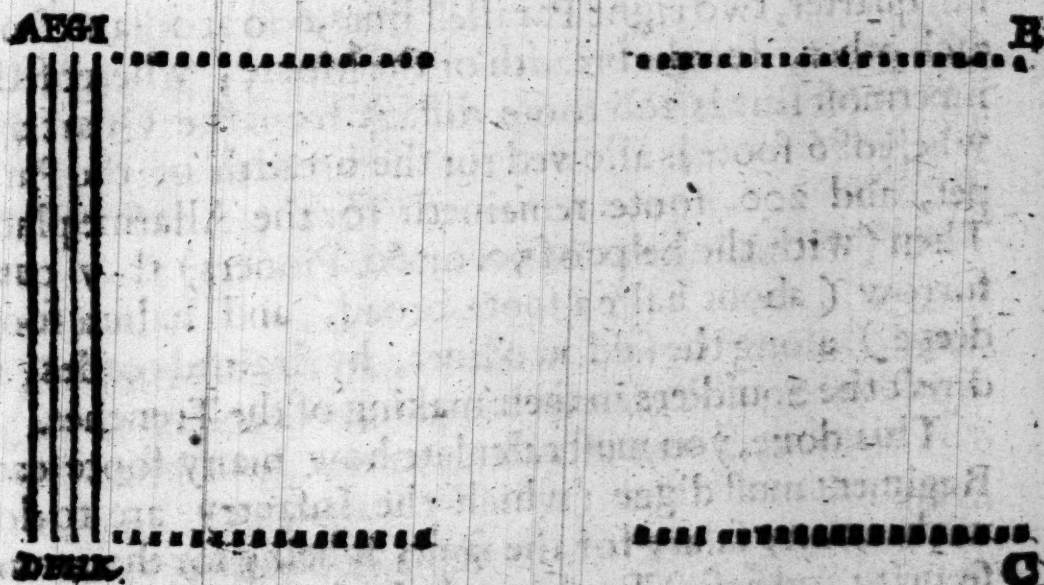
ground for the Souldiers Huts, from C. to D. (being 180. foot distant from A. B.)

Then the Sergeants of every Company presently fall to subdivide the ground for the Souldiers Huts. To doe this, they must precisely know how many Huts they are to have, and what Souldiers desire to lodge together. If two files of Huts will serve his Company, he straines foure lines from the markes made by his Quarter-master, as in the said figure is shewed by A, D. E, F. G, H. and I, K. And to set forth the ground for every Hut, he prickes downe foure stickes, to give direction where the foure corner posts of every Hut shall stand. So then the Souldiers build their owne Huts accordingly.

The Sergeants must take care that no Souldier build otherwise, than precisely as his ground is allowed him, and to this the Quartermasters, Captaines, and Collo-nels must have an Eye.

This direction given for the measuring out of a Regi-ment of foot, will give sufficient light for the measuring out of all the other quarters.

Figure 12.



Whilest

Whilest the Sergeants are busie about this worke, the Quarter-masters proceed to lay out the ground for the Capitaines lodgings, and for the Suters Huts, as is shew-
ed in figure 1.

CHAP. XXI.

*Of measuring out the Allarme place, and making the
retrenchment.*



He Romans used not to fortifie their Campes, but were quartered in the open fieldes, without any defence, untill they learned it of Pyrrhus, King of Epirus, (who was the first that environed his Campe with a Rampart,

as (a) *Frontinus* affirmeth. But afterwards they observed it, and found it to be most safe and necessary, as (b) *Vegetius* and (c) *Leo* testifie: which custome is still (for many good reasons) continued in our moderne warres.

The Quarters being all measured out, an Ingenier with his Conductors, measure out on every side of the generall quarter, two right Parallell lines, 6 foot distant from each other, for the breadth of the Moate; whereof the innermost line is 206 foote distant from the Quarters; whereof 6 foote is allowed for the breadth of the Parapet, and 200. foote remaineth for the Allarme place. Then (with the helpe of 50. or 60. Pioners) they cut a furrow (about halfe a foote broad, and halfe a foote deepe) along the said two lines, by strained cordes, to direct the Souldiers in their making of the Trenches.

This done, you must calculate how many foote each Regiment must digge (which the Infantry are to doe, without any salary for the same, it being for their owne security and ease.) To this end, looke in *Chap. 18. figure 10.* and you shall finde that the two longest sides to be digged, are 2000. foote apeece, and the two shortest
sides

sides are 1750 foote apiece, which together make 7500 foote: Whereunto there be 8560. Souldiers in severall Regiments (as appeareth in Chap. 12.) namely,

<i>Vere,</i>	1320
<i>Chastillon,</i>	1660
<i>Bethune,</i>	1660
<i>Frisons,</i>	760
<i>Count John Ernest,</i>	1310
<i>The 4 Guardes,</i>	800
<i>Count Ernest.</i>	1050

Summe 8560. Souldiers must digge 7500. foot.

Then you may calculate (by the rule of three) and say, if 8560. Souldiers must digge 7500. foot, what must 1320 Souldiers of Generall *Vere* his Regiment? *sa-*
cit 1157 foot; which you are to set downe by *Vere*; and so for the rest. So the computation will stand thus,

		<i>Foot.</i>
<i>Vere,</i>	1320 Souldiers must digge	1157
<i>Chastillon,</i>	1660	1454
<i>Bethune,</i>	1660	1454
<i>Frisons,</i>	760	666
<i>Count John Ernest,</i>	1310	1148
<i>4. Guardes,</i>	800	701
<i>Count Ernest,</i>	1050	920

8560. Souldiers must digge 7500. foot.

The length of ground which every Regiment is to digge, is to be marked on the outside of the outwardmost lockspitting, with a crosse cut in the ground. As for example, in Chap. 18. Figure 10. If you begin at the Angle *H*. there making a crosse, you measure from thence 1454. foot for *Chastillon* his Regiment, which will extend to *I*. where you must also make a crosse. In like manner measuring 1454. foot for *Bethune* his Regiment,

H

ment,

ment, they will extend as far as to the cross 1 and so for the rest.

But seeing that the said Figure 10, sheweth but the Quartering of the foot onely, and but a part of them neither, (for reason before given) I have here added the figure 13. wherein all the Horse, Foot, Officers, Artillery, and Waggon are Quartered, according to the severall Lists before mentioned, wherein observe that the Generals Quarter comprehendeth double the usuall ground, for some reason extraordinary.

The two Quarters for Stakenbrooke and Marquet, I conceive might more conveniently have beene placed nearer to Count John's Regiment of Horse; for so the street betweene Hinderson and Stakenbrooke, also that betweene Marquet and Bepane, would have beene wider (which are now but 30 foot wide) and the other two streetes on each side of Count John, which are now 55 foot wide, would have beene more regular.

Some would have the Moate of the Retrenchment to be seven or eight foote wide, and five or six foot deepe, and about two foot and a halfe broad at the bottome: The Parapet to be eight foot broad at the Basis (besides a foot banke of three foot broad) and six foot high; as appeareth by their *Profiles*; But no certaine generall measure can be set downe for the Retrenchments, because they are subject to alteration and change.

First, In regard of their forme, which must be directed according to the place which is to be fortified.

Secondly, In regard of their matter; for in some places there is good earth, in others sandy, in others moorish, &c.

Thirdly, In regard of the enemies being neare, or far off; weake, or strong, &c.

Fourthly, In regard of the condition and situation of the Campe, &c.

And accordingly the Retrenchments are to be fortified by

by *Tenailles*, *Ravelins*, *Redonts*, and halfe *Redonts*, *Forts*, *Horne-workes*, *Croune-workes*, &c. (as need and occasion shall require) observing the distance of 60. or 70. rod (being the reach of Musket shot) betweene worke and worke, on a right line.

But seeing these things doe properly belong to the Art of *Fortification*, and my purpose was onely to speake of *Castrametation*, I will put an end to this Discourse.

FINIS.

